

Native Human F8 Protein, GMP Grade

Product Information

Cat#

F8-105THP

Common Name

F8

Product Name

Native Human F8 Protein, GMP Grade

Product Overview

Native Human F8 Protein without tag was produced in an animal component free process under cGMP guidelines.

Description

This gene encodes coagulation factor VIII, which participates in the intrinsic pathway of blood coagulation; factor VIII is a cofactor for factor IXa which, in the presence of Ca^{+2} and phospholipids, converts factor X to the activated form Xa. This gene produces two alternatively spliced transcripts. Transcript variant 1 encodes a large glycoprotein, isoform a, which circulates in plasma and associates with von Willebrand factor in a noncovalent complex. This protein undergoes multiple cleavage events. Transcript variant 2 encodes a putative small protein, isoform b, which consists primarily of the phospholipid binding domain of factor VIIIc. This binding domain is essential for coagulant activity. Defects in this gene results in hemophilia A, a common recessive X-linked coagulation disorder.

Species

Human

Bio-activity

500 U/10ml

Molecular Mass

480000.0 Da (active (coagulant activity))

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AA Sequence

MQIELSTCFFLCLLRFCFSATTRYYLGAVELSWDYMQSDLGELPVDARFPPRPVKSFPFNTSVVYKTLFVEFTVH
LFNIAKPRPPWMGLLGPTIQAEVYDTVITLKNMASHPVSLHAVGVSYWKASEGAHEYDDQTSQREKEDDKVF
PGGSHTYVWQVLKENGPMASDPLCLTYSYLSHVDLVKDLNSGLIGALLVCREGSLAKEKTQTLHKFILLFAVFD
EGKSWHSETKNSLMQDRDAASARAWPKMHTVNGYVNRSLPGLIGCHRKSVYWHVIGMGTTPEVHSIFLEGH
TFLVRNHRQASLEISPITFLTAQTLLMDLGQFLLFCHISSHQHDGMEAYVKVDSCPEEPQLRMKNNEEAEDYDD
DLTDSEMDVVRFDDDNSPSFIQIRSVAKKHPKTWVHYIAAEEEDWDYAPLV LAPDDRYSYKSQYLNNGPQRIG
RKYKKVRFMAYTDETFKTREAIQHESGILGPLLYGEVGD TLLIIFKNQASRPYNIYPHGITDVRPLYSRRLPKGVKHL
KDFPILPGEIFKYKWTVTVEDGPTKSDPRCLTRYSSFVNMERDLASGLIGPLLYCYKESVDQQRGNQIMSDKRNVI
LFSVFDENRSWYLTENIQRFLPNPAGVQLEDPEFQASNIMHSINGYVFDSLQLSVCLHEVAYWYILSIGAQTDFL
SVFFSGYTFFKHKMVYEDTLTLFPFSGETVFMSENPGLWLWGCHNSDFRNRGMTALLKVSSCDKNTGDYEDS
YEDISAYLLSKNNAIEPRSFQNSRHPSTRQKQFNATTIPENDIEKTDPWFAHRTMPMKIQNVSSDLLMLLRQSPT
PHGLSLSDLQEAKYETFSDDPSPGAIDSNNSLSEMTHFRPQLHHS GDMVFTPESGLQLRLNEKLGTAA TELKKL
DFKVSSTSNLISTIPSDNLAAGTDNTSSLGPPSMPVHYDSQLD TTLFGKKSSPLTESGGPLSLSEENND SKLLESGL
MNSQESSWGKNVSSTESGRLFKGKRAHG PALLTKDNALFKVSI SLLKTNKTSNNSATNRKTHIDGPSLLIENSPSV
WQNILESDTEFFKVTPLIHDRMLMDKNATALRLNHMSNKT TSSKNMEMVQQKKEGPIPPDAQNPDMSSFFKML
FLPESARWIQRTHGKNSLNSGQGSPKQLVSLGPEKSV EGNFLSEKNKVVVGKGFTKDVGLKEMVFPSSR
NLFLTNDNLHENNTHNQEKKIQEEIEKKETLIQENVVLPQIHTVTGKNFMKNL FLLSTRQNVEGSYEGAYAPVL
QDFRSLNDSTNRKKHTAHFSKKGEEENLEGLGNQTKQIVEKYACTTRISPNTSQQNFVTQRSKRALKQFRLPLE
ETELEKRIIVDDTDTQWSKNMKHLTPSTLTQIDYNEKEKGAITQSPLSDCLTRSHSIPQANRSPLPIAKVSSFPSIRPIY
LTRVLFQDNSSHLPAASYRKKDSGVQESSHFLQGAKKNNSLAILTLEMTGDQREV GSLGTSATNSVTYKKVEN
TVLPKPDLPKTS GKVPELLPKVHIYQKDLFP TETSNGSPGHLDLVEGSLLQGTEGAIKWNEANRPGKVPFLRVATE
SSAKTPSKLLDPLAWDNHYGTQIPKEEWKSQEK SPEKTAFFKKKDTILSLNACESNHAIAAINEGQNKPEIEVTWAK
QGRTERLCSQNPPVLKRHQREITRTLQSDQEEIDYDDTISVEMKKEDFDIYDE DENQSPRSFQKKTRHYFIAAVE
RLWDYGMSSSPHVLNRNAQSGSVPQFKKVVFQEFTDGSFTQPLYRGELNEHLGLLGPYIRAEVEDNIMVTFRN
QASRPYSFYSSLISYEEDQRQGAEP RKNFVKPNETKTYFWKVQH HMAPTKDEFDCKAWAYFSDVDLEKDVHS
GLIGPLLVCHTNTLNPAHGRQVTVQEFALFFTIFDETKSWYFTENMERNCRAPCNIQMEDPTFKENYRFHAING
YIMDTLPGLVMAQDQRRIRWYLLSMGSNENIHSIHFSGHVFTVRKKEEYK MALYNLYPGVFETVEMLP SKAGIW
RVECLIGEHLHAGMSTFLVYSNKCQTPLGMASGHIRDFQITASGQY GQWAPKLARLHYSGSINAWSTKEPFS
WIKVDLLAPMIIHGIKTQGARQKFSSLYISQFIIMYSLDGKKWQTYRGNSTGTLMVFFGNVDSSGIKHNIFNPPII

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ARYIRLHPHTHSIRSTLRMELMGCDLNSCSMPLGMESKAISDAQITASSYFTNMFATWSPSKARLHLQGRSNAW
RPQVNNPKEWLQVDFQKTMKVTGVTQGVKSLTSMYVKEFLISSSQDGHQWTLFFQNGKVVFQGNQDS
FTPVVNSLDPPLTRYLRIHPQSWVHQIALRMEVLGCEAQDLY

Endotoxin

<0.001 EU/μg of the peptide by the LAL method

Purity

> 99 % by SDS-PAGE and HPLC analysis

Applications

The product is indicated for the cases of hemophilia A, also known as classical hemophilia for the prevention and control of hemorrhagic episodes. If surgery is needed in patients with hemophilia A there is a need of correction of the clotting abnormality. In this cases, the human antihemophilic factor may be administered followed by intermittent maintenance doses. The hemophilia A is characterized by the deficiency of the coagulation factor VIII that results in prolonged blood flow after injury or surgery as well as recurrent bleeding.

Usage

Hemophilia A

Gene Name

[F8 coagulation factor VIII, procoagulant component \[Homo sapiens \(human\) \]](#)

Official Symbol

[F8](#)

Synonyms

F8; coagulation factor VIII, procoagulant component; F8C; coagulation factor VIII; DXS1253E; Factor VIIIF8B; FVIII; HEMA; hemophilia A; factor VIII F8B; antihemophilic factor; coagulation factor VIIIc; AHF; F8B;

GenelD

[2157](#)

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mRNA Refseq

[NM_000132](#)

Protein Refseq

[NP_000123](#)

MIM

[300841](#)

UniProt ID

[P00451](#)
